Application Number: 10/597,708 Attorney Docket: NL040158 Response to Office Action of August 22, 2008

AMENDMENTS TO THE CLAIMS

- 1. (Currently Amended) A system for positioning a product, comprising a chuck (8;44;64;71;108) for supporting the product, an intermediate stage (5;42;62;79;105) supporting said chuck (8;44;64;71;108), and a stationary base (7;41;61;72;107) supporting said intermediate stage (5;42;62;79;105), whereby the chuck (8;44;64;71;108) can move with respect to the intermediate stage (5;42;62;79;105) in a first direction X (9;45;65,80;109), and the intermediate stage (5;42;62;79;105) can move with respect to said stationary base in a second direction Y (6;43;63;81;106), furthermore comprising at least one laser interferometer (47;68;73,74,75,76,77,78) for measuring the position of the chuck (8;44;64;71;108) relative to the stationary base (7;41;61;72;107), thea main part (47;68;73,74,75,76,77,78) of said laser interferometer including optical components for receiving and directing a laser, the main part being attached to said intermediate stage (5;42;62;79;105) and being movable therewith for measuring; so that it can measure the distance between an elongated plane mirror reflector (10;49;67;83,84,85;110) on the chuck that is elongated in the first direction X (8;44;64;71;108) and an elongated plane mirror reflector (11;50;66;82,87) on the stationary base (7;41;61;72;107) that is elongated in the second direction Y.
- 2. (Currently Amended) A system as claimed in claim 1, wherein said the second reflector (11;50;66;82,87) on the stationary base (7;41;61;72;107) is an elongated plane mirror reflector, having a length larger than the maximal displacement of the intermediate stage (5;42;62;79;105) in said second direction Y (6;43;63;81;106).
- 3. (Currently Amended) A system as claimed in claim 1, wherein the main-parts (47;68;73,74,75,76,77,78) of further comprising two laser interferometers each having a main part that is are attached to said intermediate stage 5;42;62;79;107) and movable therewith, each main part for measuring the distance between a respective first reflector (10;49;67;110) on the

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chuck (8;44;64;71;108) and the same elongated plane mirror reflector (11;50;66;82;87) in on the stationary base (7;41;61;72;107).

- 4. (Currently Amended) A system as claimed in claim 1, wherein the further comprising three laser interferometers each having a main part, the respective main parts (73,74.75) of the three laser interferometers are attached to said intermediate stage (79) and movable therewith, for measuring distances in the first direction X (80) between one or more first reflectors (83,84,85) on the chuck (71) and one or more plane mirror reflectors (82) in the stationary base (72).
- 5. (Currently Amended) A system as claimed in claim 1, wherein said reflector(110) on the chuck (108) is further comprising a cube corner reflector.
- 6. (Currently Amended) A system as claimed in claim 1, wherein the main part (76,77) of a laser interferometer is attached to said intermediate stage (79)-for measuring the distance in the third direction Z between athe reflector on the chuck and athe reflector (87)-on the stationary base (72), which third direction Z is perpendicular to the first direction X (80)-and the second direction Y-(81).
- 7. (Currently Amended) A method for positioning a product by means of a system comprising a chuck (44;64;71) for supporting the product, an intermediate stage (42;62;79) supporting said chuck (44;64;71), and a stationary base (41;61;72) supporting said intermediate stage (42;62;79), whereby the chuck (44;64;71) can move with respect to the intermediate stage (42;62;79) in a first direction X (45;65;80), and the intermediate stage (42;62;79) can move with respect to said stationary base (41;61;72) in a second direction Y (43;63;81), furthermore the method comprising attaching at least one laser interferometer to the intermediate stage, the laser interferometer further comprising a main part including optical components for receiving and directing a laser, the main part being movable with the intermediate stage, and (47;68;73,74,75,76,77,78) for measuring the position of the chuck (8;44;64;71;108) relative to

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the stationary base (41;61;72), wherein the <u>by measuring a distance between a first elongated</u> reflector (49;67) on the chuck (44;64;71) and a <u>second elongated</u> reflector (50;66;82;87) on the stationary base (41;61;72) is measured by means of ausing the laser interferometer, whereby the main part (47;68;73,74,75) of that laser interferometer is attached to said intermediate stage (42;62;79).

- 8. (New) A method as claimed in claim 7, wherein the first elongated reflector is elongated in the first direction X and the second elongated reflector is elongated in the second direction Y.
- 9. (New) A method as claimed in claim 7, further comprising moving the chuck relative to the stationary base and measuring the position of the chuck relative to the stationary base during such movement.